

WHAT IS CLAIMED IS:

1. A lamp driving apparatus comprising:

a plurality of lamps arranged in parallel;

5 a substrate facing the lamps;

a lamp driving module, mounted on the substrate, to provide the lamps with a power voltage;

a plurality of sensors, disposed on the substrate to face the lamps, to detect an operation state of the lamps and to output a plurality of sensing signals; and

10 a voltage cut-off module, disposed on the substrate, to compare the sensing signals with a predetermined reference signal, the voltage cut-off module providing the lamp driving module with a voltage cut-off signal to prevent the lamp driving module from providing the lamps with the power voltage when at least one of the sensing signals has an amplitude smaller than the reference signal.

15 2. The lamp driving apparatus of claim 1, wherein the sensors includes a conductive member that transduces a magnetic flux generated from at least one of the lamps to a current signal to output the sensing signal.

20 3. The lamp driving apparatus of claim 2, wherein the conductive member comprises a copper plate.

4. The lamp driving apparatus of claim 1, wherein each of the sensors is spaced apart from each of the lamps by a distance in a range from about 3mm to
25 about 5mm.

5. The lamp driving apparatus of claim 4, wherein the substrate further includes a distance regulation member to regulate the distance between the sensors and the lamps.

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6. The lamp driving apparatus of claim 1, wherein the sensing signal is a first current signal and the reference signal is a second current signal.

7. The lamp driving apparatus of claim 1, wherein the substrate further
10 includes an alarming device that alarms in response to the voltage cut-off signal.

8. The lamp driving apparatus of claim 1, wherein the sensor includes a photoelectric sensor that transduces a light generated from at least one of the lamps to a current signal based on a photoelectric effect to output the sensing signal.

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9. The lamp driving apparatus of claim 8, wherein the photoelectric sensor includes a conductive member and an amorphous silicon thin film, the amorphous silicon thin film formed on the conductive member to face the lamps.

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10. The lamp driving apparatus of claim 8, wherein the sensor further includes a light interference protection member that selectively receives the light generated from the lamps.

11. The lamp driving apparatus of claim 1, wherein the sensor includes a
25 photoelectric device that transduces a light generated from at least one of the lamps

to a current signal based on a photovoltaic effect to output the sensing signal.

12. The lamp driving apparatus of claim 8, wherein the photoelectric device includes a photodiode or a phototransistor, the photodiode or the phototransistor having a thin film shape.

13. The lamp driving apparatus of claim 11, wherein the sensor further includes a light interference protection member that selectively receives the light generated from the lamps.

14. A backlight assembly comprising:
a lamp assembly including a plurality of lamps arranged in parallel, each of the lamps having a first electrode formed at a first end and a second electrode formed at a second end, the lamp assembly providing the lamps with a power voltage to turn on or turn off the lamps;

a receiving container that receives the lamp assembly, the receiving container having a plurality of openings facing each of the lamps;

a lamp driving device including i) a substrate facing the receiving container, ii) a lamp driving module, mounted on the substrate, to provide the lamps with the power voltage, iii) a plurality of sensors, disposed on the substrate to face the lamps, to detect an operation state of the lamps to output a plurality of sensing signals, iv) a voltage cut-off module, disposed on the substrate, to compare the sensing signals with a predetermined reference signal, the voltage cut-off module providing the lamp driving module with a voltage cut-off signal to prevent the lamp driving module from providing the lamps with the power voltage when at least one of the sensing signals

has an amplitude smaller than the reference signal.

15. The backlight assembly of claim 14, wherein the lamp assembly further comprises a first module and a second module through which the power voltage is supplied to the lamps, the first electrodes of each of the lamps are connected to the first module, the second electrodes of each of the lamps are connected to the second module, and the first and second module are connected to the lamp driving module.

16. The backlight assembly of claim 14, wherein the sensors includes a conductive member that transduces a magnetic flux generated from at least one of the lamps to a current signal to output the sensing signal.

17. The backlight assembly of claim 14, further comprising a reflection plate, disposed between the lamps and the receiving container, to reflect a light incident into the receiving container toward the lamps.

18. The backlight assembly of claim 14, wherein the sensors are electrically insulated by an insulation member.

19. The backlight assembly of claim 18, wherein the insulation member is disposed on the substrate and insulates the sensors from the receiving container.

20. The backlight assembly of claim 14, wherein each of the sensors are disposed under each of the openings.

21. The backlight assembly of claim 14, wherein the sensors are disposed on a first surface of the receiving container, and the lamp driving module and the voltage cut-off module are disposed on a second surface of the receiving container, the first surface facing the lamps, the second surface facing the first surface.

22. A liquid crystal display device comprising:

a backlight assembly including i) a lamp assembly including a plurality of lamps arranged in parallel, each of the lamps having a first electrode formed at a first end and a second electrode formed at a second end, the lamp assembly providing the lamps with a power voltage to turn on or turn off the lamps, ii) a receiving container to receive the lamp assembly, the receiving container having a plurality of openings facing each of the lamps, iii) a lamp driving device including iii-1) a substrate facing the receiving container, iii-2) a lamp driving module, mounted on the substrate, to provide the lamps with the power voltage, iii-3) a plurality of sensors, disposed on the substrate to face the lamps, to detect an operation state of the lamps and to output a plurality of sensing signals, iii-4) a voltage cut-off module, disposed on the substrate, to compare the sensing signals with a predetermined reference signal, the voltage cut-off module providing the lamp driving module with a voltage cut-off signal to prevent the lamp driving module from providing the lamps with the power voltage when at least one of the sensing signals has an amplitude smaller than the reference signal; and

a liquid crystal display panel assembly, mounted on the receiving container, to display an image using a light generating from the lamps.